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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,798	12/12/2001	Valentin Kramer	31567.3	9144
27683	7590	04/01/2004	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			CHANG, VICTOR S	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 04/01/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/017,798

**Applicant(s)**

KRAMER ET AL.

**Examiner**

Victor S Chang

**Art Unit**

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Examiner has carefully considered Applicants' amendments and remarks filed on 2/19/04. Applicants' amendments to claims 1 and 10, and newly added claims 15-18 have been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Rejections not maintained are withdrawn.

### ***Claim Rejections - 35 USC § 112***

4. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, substantially for the reasons set forth in section 3 of Paper No. 112403, together with the following additional observations.

The Examiner notes that while the claims are substantially amended, many claims are still replete with vague and indefinite recitations. Further clarification is necessary. For example:

In claim 1, lines 3-6, the amended recitation "wherein a first pore size distribution comprises smaller pore sizes than a second pore size distribution and the pores of the smaller pore size distribution are randomly distributed within the pores of the larger pore size distribution" is still extremely vague, indefinite and confusing. In particular, the Examiner repeats that (see page 2 of Paper No. 112403) it is unclear as to how the

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scopes of the two vaguely recited "pore size distributions" as claimed can be patentably distinct, because in the absence of a clear limitation regarding the scope (specific characteristics) of each "distribution" and their structural relations, any substantially uniform distribution of pores over a range of pore sizes could inherently be arbitrarily further randomly subdivided locally into "distributions" of different pore sizes, and "intermixed" within each other, and as such read upon the instantly claimed invention. The Examiner notes that Applicants' silence in Remarks filed 2/19/04 is non-responsive to Examiner's specific request for a clarification stated in the prior Office action (Paper No. 112403, section 3). Clarification and proper support are again requested.

In substantially amended claim 10, lines 4-7, the Examiner notes that each of the newly amended phrases "a distribution of relatively small pores" and "a distribution of relatively large pores" appears to be vague, indefinite and confusing as to what is the standard they are being referenced to. Also, in claim 10, lines 8, the scope of the recitation "further resins" is clearly vague and indefinite. Finally, in claim 10, lines 8-11, the amended recitation "after expanding, the pores of the smaller pore size distribution are randomly distributed within the pores of the larger pore size distribution" is again extremely vague, indefinite and confusing because they read upon any substantially uniform distribution of pores over a range of pore sizes, as set forth above.

Clarifications of each aforementioned element in claim 10 are requested.

For claim 9, with respect to Applicants' response arguing that "The specification ... in paragraph 12 ... the preferred invention may be constructed ... with or without the reinforcing wrapping" (Remarks, page 5, 4<sup>th</sup> paragraph), the Examiner notes that the

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cited Specification are clearly directed to ePTFE tubes in paragraph 0011, not a sheet material as recited in claim 9. As such, the Examiner repeats (see Paper No. 112403, page 3) that the scope of the phrase "reinforced sheet" is vague and indefinite, and clarification and proper support in the Specification are requested.

In newly added claims 15-18, the Examiner respectfully notes that the recitations regarding the structural relations of larger and smaller pores to the nodes and fibril lengths are also clearly inherent to any substantially uniform distribution of pores over a range of pore sizes, and again fails to distinctly claim the instant invention. Clarification is requested. Finally, the Examiner notes that claims 15 and 16 appear to be narrative in form, and suggests rewriting the claims in proper "comprising" format, so as to clearly recite the claimed elements.

### ***Response to Amendment***

5. Claims 1-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over admitted prior art DE 690 03 879, substantially for the reasons set forth in section 6 of Paper No. 112403, together with the following additional observations.

With respect to Applicants' response arguing that DE '879 does not teach or suggest the elements (two pore size distributions) of the instantly claimed invention in claim 1 (Remarks, page 6), the Examiner repeats (see Paper No. 112403, page 3) that DE '879 expressly teaches an expanded PTFE material comprising a mixture of a PTFE having a high molecular weight of 2,000,000 or more and a PTFE having a low

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molecular weight of 1,000,000 or less. Although DE '879 is silent about the relations between the PTFE molecular weight and pore size, it is noted that in Example I of instant invention, the molecular weights of the two PTFE polymers are 3,000,000 and 1,000,000. As such, in the absence of unexpected results, DE '879 clearly reads on the composition of the expanded PTFE of the instant invention, and a proper pore size distribution and structural relations among its larger and smaller pores, whether being arbitrarily subdivided and viewed as "two pore distributions" or not, are believed to be either inherently disclosed by DE '879, or an obvious optimization to one of ordinary skill in the art, motivated by the desire to obtain an improved membrane for various applications, Applicants' argument to the contrary notwithstanding. It should be noted that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. See MPEP § 2112.01.

For newly added claims 15-18, since the scope of the instantly claimed elements are essentially the same as those of claims 1-14, they are also rejected as set forth above.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition, the following references are cited of interest for making PTFE microporous membrane:

US 5102921 to Harada et al. is directed to a PTFE porous material and a process for producing the porous material, which comprises a mixture of a PTFE having

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a number-average molecular weight of 2,000,000 or more and a PTFE having a number-average molecular weight of 1,000,000 or less (Abstract). Harada teaches that it is known art that low molecular weight PTFE produces porous materials having small average pore diameters (column 2, lines 24-27). In examples 1-4, Harada shows a mixture of high and low molecular weight PTFE fine powder, and further mixed with a liquid lubricant. The resulting mixture is extruded with a paste extruder, formed into a sheet, and expanded by uniaxial or biaxial heat stretching (column 6, line 47 to column 8, line 60). In the case of a tube or rod, stretching is easily attained by expanding the tube or rod in the longitudinal direction (column 5, lines 12-14).

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**8.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DANIEL ZIRKER  
PRIMARY EXAMINER  
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*Daniel Zinker*